

JOURNAL OF SOUND AND VIBRATION

EDITOR
P. E. Doak

EDITORIAL BOARD

C. W. Bert
H. O. Berktaý
R. E. D. Bishop
A. Cabelli
B. L. Clarkson
D. G. Crighton
E. H. Dowell
C. Gazanhes
G. M. L. Gladwell
M. Heckl
D. J. Johns
A. W. Leissa
S. Lindblad
D. J. Mead
A. Powell
C. G. Rice
J. B. Roberts
D. W. Robinson
J. D. Robson
W. Soedel
D. G. Stephens
A. Tondl
G. B. Warburton
R. G. White
G. Yamada

VOLUME 130
1989

ACADEMIC PRESS

Harcourt Brace Jovanovich, Publishers

LONDON SAN DIEGO

NEW YORK BOSTON

SYDNEY TOKYO TORONTO

ISSN 0022-460X



BRUNDSSEN, V., CORTELL, J. and HOLMES, P. J., Power spectra of chaotic vibrations of a buckled beam	1
MUKHOPADHYAY, M., Vibration and stability analysis of stiffened plates by semi-analytic finite difference method, part I: Consideration of bending displacements only	27
MUKHOPADHYAY, M., Vibration and stability analysis of stiffened plates by semi-analytic finite difference method, part II: Consideration of bending and axial displacements	41
MENGI, Y. and BIRLIK, G. A., A refined dynamic theory for viscoelastic cylindrical shells and cylindrical laminated composites, part I: General theory	55
BIRLIK, G. A. and MENGI, Y., A refined dynamic theory for viscoelastic cylindrical shells and cylindrical laminated composites, part 2: An application	69
SUZUKI, S., MARUYAMA, S. and IDO, H., Boundary element analysis of cavity noise problems with complicated boundary conditions	79
TAVAKOLI, M. S. and SINGH, R., Eigensolutions of joined/hermetic shell structures using the state space method	97
SHEPHERD, I. C., LA FONTAINE, R. F. and CABELLI, A., The influence of turbulent pressure fluctuations on an active attenuator in a flow duct	125
FARRIS, T. N. and DOYLE, J. F., Wave propagation in a split Timoshenko beam	137
NECIB, B. and SUN, C. T., Analysis of truss beams using a high order Timoshenko beam finite element	149

Letters to the Editor

LANGLEY, R. S., Further comments on the non-linear vibrations of beams	161
LIM, S. P., SENTHILNATHAN, N. R. and LEE, K. H., Rayleigh-Ritz vibration analysis of thick plates by a simple higher order theory	163
BAMBILL, E. A. and LAURA, P. A. A., Application of the Rayleigh-Schmidt method when the boundary conditions contain the eigenvalues of the problem	167
SILCOX, R. J., FULLER, C. R. and LESTER, H. C., Modal coupling and acoustic intensity measurements	171

Volume 130, No. 2, 22 April 1989

EVIRGEN, H. and ERTEPINAR, A., Small radial vibrations of layered, hyperelastic, spherical shells of arbitrary wall thickness subjected to finite, initial radial deformations	177
LAWRIE, J. B., An infinite, elastic, cylindrical shell with a finite number of ring constraints	189
SINHA, A. and CHEN, S., A higher order technique to compute the statistics of forced response of a mistuned bladed disk assembly	207

YAMADA, G., KOBAYASHI, Y. and HAMAYA, H., Transient response of a hanging curtain	223
HODGES, C. H. and WOODHOUSE, J., Confinement of vibration by one-dimensional disorder, I: Theory of ensemble averaging	237
HODGES, C. H. and WOODHOUSE, J., Confinement of vibration by one-dimensional disorder, II. A numerical experiment on different ensemble averages	253
ONO, K. and YAMADA, M., Analysis of railway track vibration	269
CAWLEY, P. and THEODORAKOPOULOS, C., The membrane resonance method of non-destructive testing	299
COUSSY, O., SAID, M. and VAN HOOVE, J.-P., The influence of random surface irregularities on the dynamic response of bridges under suspended moving loads	313

Letters to the Editor

FURNELL, G. D., Corrections to "A study of sound transmission in curved duct bends by the Galerkin method"	329
BRAVO YUSTE, S., A generalized Galerkin method for cubic oscillators	332
LIU, W. H. and CHANG, I. B., Some studies of the free vibration of cantilever plates with uniform and non-uniform thickness	337
JANG, S. K. and BERT, C. W., Free vibration of stepped beams: Exact and numerical solutions	342
GILLAN, F. S. and ELLIOTT, S. J., Measurement of the torsional modes of vibration of strings on instruments of the violin family	347

Volume 130, No. 3, 8 May 1989

ABBAS, B. A. H. and IRRETIER, H., Experimental and theoretical investigations of the effect of root flexibility on the vibration characteristics of cantilever beams	353
KIM, C. S. and DICKINSON, S. M., On the lateral vibration of thin annular and circular composite plates subject to certain complicating effects	363
MALHOTRA, S. K., GANESAN, N. and VELUSWAMI, M. A., Vibration and damping analysis of orthotropic triangular plates	379
ABRAHAMAS, I. D., Scattering of sound by a finite non-linear elastic plate bounding a nearly-resonant cavity	387
FURNELL, G. D. and BIES, D. A., Characteristics of modal wave propagation within longitudinally curved acoustic waveguides	405
CHEN, L.-W., HWANG, J.-R. and DOONG, J. L., Asymmetric dynamic stability of thick annular plates based on a high-order plate theory	425
YEO, M. F. and SCHMID, L. J., Wave propagation in solid and fluid structures using finite element transfer matrices	439

KAMESWARA RAO, C. and MIRZA, S., A note on vibrations of generally restrained beams	453
LIBRESCU, L. and CHANDIRAMANI, N. K., Dynamic stability of transversely isotropic viscoelastic plates	457
WEAVER, R. L., On the ensemble variance of reverberation room transmission functions, the effect of spectral rigidity	487
JACOBSEN, F., Active and reactive, coherent and incoherent sound fields	493
<i>Letters to the Editor</i>	
MICKENS, R. E., OYEDEJI, O. and MCINTYRE, C. R., A difference-equation model of the Duffing equation	509
MICKENS, R. E., Construction of a perturbation solution for a nonlinear singular oscillator equation	513
CHANG, J. Y. and LIU, W. H., Some studies on the natural frequencies of immersed restrained column	516

Copyright © 1989, by Academic Press Limited

ALL RIGHTS RESERVED

No part of this volume may be reproduced in any form, by photostat, microfilm, or any other means, without written permission from the publishers.

Printed in Great Britain